was observed in the testicles. I now stimulated the cerebellum with the point of the knife; and I had done so for scarcely so much as three seconds, when one testicle raised itself up, and moved from the spermatic cord on which it had lain, so as to form nearly a right angle with it. At the same time it became more and more tense. The more I irritated the cerebellum, the more the testicle moved. I stimulated hither and thither, but the two testicles were never moved at the same time. I soon discovered the cause of this remarkable fact. When I stimulated the right lobes of the cerebellum, and the right half of the commissure, the left testicle always moved; when, on the other hand, I stimulated the left lobes, and the left half of the commissure, then as regularly the right testicle rose up. I had thus the movement of the testes entirely under my control, so that I could make one or other move as I wished; and I continued the experiment for full half an hour.

The cerebellum is, then, the part at which the nerves of the testes have their terminal point; the nerves also cross each other in the brain as those of all the rest of the body do; and they must lie tolerably superficially in it, because a deep irritation does not succeed in producing the motion of the testes. It seems probable to me, that the union of the nerves takes place in the region of the first cervical vertebra, because stimulus of this part of the cord is very often accompanied by erection and discharge of semen, as in the hanged, &c.

This simple observation is of the greatest importance in many physiological and pathological phenomena. Thus from this connection, the hitherto inexplicable sympathy between the testicles and parotid gland is accounted for by nervous communication. Perhaps also the relation of the testes to the growth of the beard is explained by this connection, since the trigeminous nerve may be traced in its ultimate roots to the part where the union of the nerves of the male sexual organs may be conceived to take place; and the nervus trigeminus is distributed in the face, and, most probably, contains organic fibres which are concerned in the growth of the hair.

It cannot be thought remarkable, that in so many diseases of the cerebellum, the sexual organs should still not suffer. For, in the first place, the whole cerebellum is certainly not to be regarded as the central point of the sexual nerves, but only a part of it; and if this part does not suffer, the sexual organs will remain healthy; and, in the second place, one would be wrong in thinking that every disease of the cerebellum must act in such a manner on those organs, as to procure a distinctly observable disease.

One may suppose that if the part where the nerves meet were compressed, impotence would probably result; but how many men are impotent without even knowing it.—*Lond. Med. Gaz.* from *Muller's Archiv.* Heft 5, 1840.

---

8. *Growth of the Hair.*—M. Mandl is inclined from some phenomena which he has observed in the growth of hair, to arrive at a different conclusion relative to this process, from that generally received. He states that, in individuals who have had their hair recently cut, each hair preserves its diameter to its free end, which presents a truncated extremity, where the eye may distinguish the section both of the cortical part and that of the internal canal. But if these same hairs are examined after a longer interval, each hair is found to be terminated by a pointed extremity, more or less long, but with its extremity closed. This change of form M. Mandl considers to be the result of a vital process, and as proving the possibility of a movement of fluids in the interior of the hairs. He thinks this opinion is still further supported by the fact, that when hair is kept long, instead of the formation of a pointed extremity, obliteration of the extremity of the canal alone takes place, which he supposes to be caused in all probability by the difficulty of the movements of the fluids.—*Comptes Rendus*, *27th Jan.* 1840.

---

9. *Experiments on the Motor and Sensitive Roots of the Nerves.* By Dr. Kronenberg, of Moscow.—During my stay in Paris in July (1839), Prof. Magendie had the kindness to show me his recent experiments on the nerves, which he had communicated to the Academy. These, as made in my presence, I will

here detail, in the first place, and then notice my own experiments made some time afterwards.

1. M. Magendie laid bare the facial nerve of a dog near its origin and pricked it; at each prick a demonstration of pain was given. The nerve was then cut across, not far from its junction with the fifth pair. Pricking and pinching the cerebral end of the divided nerve produced no indication of sensibility; but pinching the other end obviously caused pain. It appears from this experiment that the sensibility of the facial nerve, as well after as before its union with the fifth pair, depends on this last, and not from any other anastomosis or the influence of the brain sent direct through its origin. M. Magendie then laid bare the roots of the lumbar nerves of a dog. The posterior roots were found as usual very sensible; the anterior were less so, still the dog whined and gave evident signs of pain each time they were pinched. M. M. then divided the motor root; pinching the spinal extremity of this produced no pain, but pinching the other (before its union with the sensitive root) caused the dog to cry out.

2. Some weeks after this I performed the following experiments on rabbits: The facial nerve before its union with the fifth was found sensible, at one time more so, at another less; on dividing it before its union, pinching its under (peripheral) end produced pain, yet not always. I then laid bare the lumbar portion of the spinal marrow, and found the motor roots sensible, but much less so than the sensitive. The following experiments, however, prove that the sensibility of the motor roots is not derived through fibres coming directly from the spinal marrow, but is dependent on the other (the sensitive) roots. When I stimulated the motor root, the sensitive root being undivided, pain was evinced, but when the latter was divided the same stimulus produced no sensation. Magendie's experiment equally proved this, and its repetition by myself confirmed the same. After division of the anterior root, the posterior being untouched, the under or peripheral end was always sensible, the upper not. The case is similar with the anterior column of the spinal marrow—pain being only produced when the posterior roots were uninjured.

In order to settle this point still more firmly, and to ascertain the course of the fibres, I made the following experiment; I made in the angle of union of the two roots a small incision, about half a line in extent, leaving both the roots untouched: it was then found that the same phenomena no longer took place; thus, the anterior root and the anterior column of the spinal marrow were now insensible, and on the division of the root both its ends were equally insensible.

This simple and easy experiment proves, first, that a portion of the fibres of the sensitive root extends to the point of union and is reflected back to the anterior column of the spinal marrow; and, secondly, that the return or reflection of the fibres takes place near the point of junction of the two roots.

[These experiments afford a satisfactory explanation of phenomena which have been very perplexing to physiologists. It has been almost constantly observed that some degree of sensibility appeared to exist in what Sir C. Bell regarded as exclusively the *motor* roots of the nerves; this sensibility being manifested by expressions of pain on the part of the animal when they were irritated. The sensibility of the portio dura has long been known, and was correctly attributed by Sir C. Bell to its reception of filaments from the fifth pair. A similar mixture of the filaments of the posterior roots of the spinal nerves with those of the anterior—these filaments passing *towards* the centre as well as *from* it—may be reasonably anticipated; and this supposition fully explains all the phenomena which have led Magendie and others to the opinion that the anterior roots are sensible. The supposed motor properties of the posterior roots are fully accounted for by Dr. Hall's discoveries; since irritation of these will produce reflex actions through the motor nerves distributed to the same parts.] *Brit. and For. Med. Rev.*, April, 1840, from *Müller's Archiv.* Heft v. 1839.

---

10. *Case of a woman pregnant with five children*—Doctor Evory Kennedy produced five fœtuses, with their involucra, the product of a single abortion, at the